

OEM Installation Guidance
RFID module
FCC ID: 2BCPX-RFID01

Host Mounting Requirements:

Before installing the RFID1H-01 module to the host, you must mount the RFID1H-01 in a location and environment that meets the following requirements:

- Ensure that the location is within the cabinet of host, and ensure that any part of the module is not exposed outside the cabinet;
- Ensure that the location is dry;
- Ensure that the location is within the operating temperature $-40^{\circ}\text{C} \sim 75^{\circ}\text{C}$;
- Mount the module in a high location as possible. Mounting the module below ground level can reduce the range of the system;
- Mount the module in a location that is far away from sources of interference, such as electric motors, heating, air conditioning units, and other sources of electrical noise. Large metal object like heating ducts and plumbing can also shield the electromagnetic waves;
- Ensure that there are no obstructions blocking the rear of the unit;
- Ensure the power supply voltage always within 3.3Vdc

OEM Installation Notes:

1. OEM integrators must ensure that its product is electrically identical to Ruifanda reference designs. Any modifications may invalidate regulatory approvals in relation to the product, or may necessitate notifications to the relevant regulatory authorities.
2. The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.
3. The OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed
4. OEM integrator shall not modify and change the fixed designed PCB print antenna, and must not be co-located

or operating in conjunction with any other antenna or transmitters, otherwise, a Class II Permissive Change (C2PC) must be filed with the FCC authorization must be applied.

5. Appropriate labels must be affixed to the product that complies with applicable regulations in all respects. The regulatory label on the final end product must be labelled in a visible area with the following “Contains TX FCC ID: 2BCPX-RFID01” or “Contains Transmitter Module FCC ID: 2BCPX-RFID01”. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users’ manual: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
6. A user’s manual or instruction manual must be included with the product that contains the text as required by applicable law shall be provided to OEM integrators. They may include:
7. For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

Any changes or modifications to this equipment not expressly approved by the OEM/Integrator may cause harmful interference and void the user's authority to operate this equipment.

RF Exposure

This device has been evaluated and shown compliant with the FCC RF Exposure limits under portable fixed exposure conditions

7. Per FCC Rule parts 15.225

The modular transmitter is only FCC authorized for the specific rule parts 15.225 listed on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

The modular transmitter NO its own RF shielding, and tested in a stand-alone configuration.

The module was designed with the fixed PCB print antenna, any changes or modifications by the OEM integrator will require additional testing and evaluation.

The module has been evaluated and shown compliant with the FCC RF Exposure limits. OEM integrator shall equipped the antenna to compliance with antenna requirement part 15.203&15.204 and must not be co-located or operating in conjunction with any other antenna or transmitters,otherwise, a Class II Permissive Change (C2PC) must be filed with the FCC and/or a new FCC authorization must be applied.

The antenna of the module was deisgned as PCB printed on the PCBA board and the best gain is 0dBi. Modification the antenna design may need additional testing and evaluation.

8. Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end - product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or co - location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re - evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

The host product manufacturer is responsible for compliance with any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

9. OEM/Host manufacturer responsibilities

OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi - radio and combined equipment

FOR DEVICE USAGE

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. This device has been evaluated and shown compliant with the FCC RF Exposure limits under portable fixed exposure conditions.

Additional Testing and Grantee Evaluation for Host Product.ⁱ

The transmitter module is designed as a limited-module, including all the hardware and software parts of the wireless part, but no its own RF shielding, and it is tested in a typical standalone configuration, for detailed test modes and test requirements please refer to the FCC report (NTC2308089FV00). Therefore, after installing this module, the Host product will require further testing or certification evaluation, details are as follows:

1. The host product installed this module exactly according to this guide, and did not make any hardware or software modifications to the module. The host product will need to evaluate and conduct Radiated Emission and Conducted Emission test, and implement C1PC procedure in accordance with §2.1043 to ensure compliance.
2. The host product installed this module exactly according to this guide, and no hardware or software modifications have been made to the module, but it was co-located with other transmitters. The host product will need to evaluate and conduct RF Exposure, Radiated Emission and Conducted Emission test, and implement C2PC procedure in accordance with §2.1043 or apply for a new grant certification..
3. The host product is installed according to this guide, but modified the software that does not affect the wireless characteristics. The host product will need to evaluate and conduct Radiated Emission and Conducted Emission test, and implement C1PC procedure in accordance with §2.1043 to ensure compliance.
4. Host product is not installed according to this guide, the module certification will be invalid and a new grant certification will be required for the host product.

In either case described above, the host product shall evaluate the compliance for the FCC rules that apply to the host product not covered by the modular transmitter grant of certification.

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